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7. A device as recited in Claim 6, wherein the number of switching points is fewer than half of NxN, where N equals the number of user ports plus the number of channel up ports; plus the number of channel down ports.

REMARKS:

Applicant appreciates the telephone interview on May 30, 1995. Applicant has tried to make this amendment responsive to the concerns expressed by the Examiner in that interview.

The material on page 9 that was objected to as addition of new matter has been deleted in this amendment. It is understood that the video bandwidth listed in the application is what is currently in use and that the claims of the present application refer to any video bandwidth signal, even if the technology changes and results in a change in the video bandwidth from what is listed in the application.

Claim 1 has been cancelled and replaced with Claim 6.

Claim 6 is supported by Figures 4 and 7 of the specification. This claim is intended to claim a hub which defines up channels, down channels, and users, as shown in Figure 4, in order to permit channel segmentation, as described in the specification. This is different from the prior art of Figure 2, in which no up and down channels are defined (connections to hubs are the same as connections to users, and there is no up or down). It is also different from the prior art of Figure 3, in which there is a bus, carrying the same information throughout the network.

Claim 7, which adds the limitation of the number of switching points, is supported by the specification as follows: Figure 7 shows one of the matrix boards 200. In that board are six 8x16 matrix switches, giving a total of 6x8x16=768 switching points on that board. Figure 8 shows how these boards are stacked to form a hub, so that the 16 users can be connected to more upstream and downstream channels. Figure 8 shows three of the matrix boards stacked, and the description explains, on page 17, beginning on line 4, that, in one of the preferred embodiments, there are eight of these matrices 200 stacked (in the manner shown in Figure 8) to permit communication with 64 upstream channels and 64 downstream channels. In that embodiment, there are 8x768=6144 switching points. This is fewer than half of NxN, where N=the number of users (16) plus the

number of up channels (64) plus the number of down channels (64), or $144^2=20,736$. In that preferred embodiment, there is a device (a hub) with user ports, channel up ports, channel down ports, and a switching matrix (made up of eight of the matrices 200). The functionality of the hub is as recited in Claim 6.

Applicant hopes that this amendment and explanation have resulted in claims that are clear and that are clearly supported by the specification. These claims recite an invention that is both novel and unobvious in view of the cited art. Therefore, Applicant respectfully requests allowance of all the claims now pending in the present application.

Respectfully submitted,

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